AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1-13. (Canceled)

14. (Presently amended) A polynucleotide comprising a nucleic acid sequence encoding a plurality of cytotoxic T lymphocyte (CTL) epitopes wherein each CTL epitope is ~~substantially~~ free of peptide sequences naturally found to flank that CTL epitope and wherein ~~at least two of the~~ a plurality of CTL epitopes are contiguous ~~or spaced apart by an intervening sequence that does not comprise a methionine~~.

15. (Canceled)

16. (Previously amended) The polynucleotide of claim 14, wherein said polynucleotide encodes at least three CTL epitopes.

17. (Previously amended) The polynucleotide of claim 14, wherein said polynucleotide encodes four CTL epitopes.

18. (Original) The polynucleotide of claim 14, wherein said polynucleotide encodes nine CTL epitopes.

19. (Original) The polynucleotide of claim 14, wherein said polynucleotide encodes ten CTL epitopes.

20. (Previously amended) A vector comprising the polynucleotide of claim 14.

21. (Previously amended) The vector of claim 20, wherein said vector is selected from the group consisting of a viral vector and a virus-like particle (VLP).

22. (Previously amended) The vector of claim 21, wherein said viral vector is a vaccinia vector.

23. (Previously amended) The vector of claim 21, wherein said viral vector is an avipox virus vector.

24. (Presently amended) The vector of claim 21, wherein said vector is a VLP.

25. (Original) The polynucleotide of claim 14, wherein at least one of said CTL epitopes is derived from a pathogen.

26. (Original) The polynucleotide of claim 14, wherein said polynucleotide comprises a nucleic acid sequence encoding CTL epitopes derived from a plurality of pathogens.

27. (Presently amended) The polynucleotide of claim 25, wherein said pathogen is selected from the group consisting of Epstein Barr Virus, Influenza Virus, Cytomegalovirus and Adenovirus ~~and HIV~~.

28. (Original) The polynucleotide of claim 14, wherein at least one of said epitopes is derived from a tumor protein.

29. (Original) The polynucleotide of claim 14, further comprising a nucleic acid sequence encoding a T helper cell epitope, a B cell epitope , or a toxin.

30. (Original) The polynucleotide of claim 14, further comprising a nucleic acid sequence encoding a T helper cell epitope.

31. (Original) The polynucleotide of claim 14, further comprising a nucleic acid sequence encoding a B cell epitope.

32. (Canceled)

33. (Presently amended) A nucleic acid vaccine comprising a polynucleotide comprising:

(i) a nucleic acid sequence encoding a plurality of cytotoxic T lymphocyte (CTL) epitopes wherein each CTL epitope is ~~substantially~~ free of peptide sequences naturally found to flank that CTL epitope and wherein ~~at least two of the~~ a plurality of CTL epitopes are contiguous ~~or spaced apart by an intervening sequence that does not comprise a methionine~~; and

(ii) an acceptable carrier.

34. (Canceled)

35. (New) A polynucleotide comprising a nucleic acid sequence encoding a plurality of minimal cytotoxic T lymphocyte (CTL) epitopes wherein:

(i) each minimal CTL epitope is substantially free of peptide sequences naturally found to flank that CTL epitope;

(ii) a plurality of said minimal CTL epitopes are contiguous or spaced apart by an intervening sequence that does not include a methionine; and

(iii) when said polynucleotide is delivered *in* vivo, said polynucleotide is transcribed then translated to the protein it encodes and said protein is effectively processed *in vivo* to yield said minimal CTL epitopes under conditions sufficient to permit effective HLA-restricted presentation and CTL induction.